Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
The FCC Seeks Comment and Data on Actions	)	**GN Docket No. 16-46**
To Accelerate Adoption and Accessibility of	)	
Broadband-Enabled Health Care Solutions	)	
And Advanced Technologies	)	

COMMENTS OF THE PUBLIC SERVICE COMMISSION OF WISCONSIN

The Public Service Commission of Wisconsin (PSCW) respectfully submits these comments in response to the above captioned Public Notice, GN Docket No. 16-46, FCC 17-46 (April 24, 2017) (Public Notice). The PSCW has awarded grants to assist with the purchase of equipment capable of promoting telemedicine for several years. The PSCW provides the comments below to describe Wisconsin's efforts to provide an advanced telemedicine capability in underserved areas of the state, and also to indicate the types of broadband-enabled devices and services for which medical clinics in Wisconsin have typically requested funding.

The Public Notice requests comments on the following questions:

> 7. What efforts are being made at the state and local levels to address broadband health technology accessibility issues in rural and remote areas, Tribal lands, and underserved urban areas? We seek specific information, particularly from states, localities, and rural and urban medical centers, about any broadband-enabled health IT programs that have been developed and implemented (or will soon be implemented) to reach these areas. How successful have those programs been? What are some of the lessons learned in developing those programs? What programs and other efforts are necessary to drive attention to those rural and underserved populations that need health technologies most? How can the Commission better facilitate the deployment of services and technologies as well as consumer adoption in those areas?

Wisconsin created a grant program in 2001, the Medical Telecommunications Equipment Grant Program (Telemedicine Grant Program), to encourage the use of telecommunications equipment and services for medical applications. The program is administered by the PSCW under the authority of Wis. Stat. § 196.218(4u) and Wis. Admin. Code § PSC 160.115. The PSCW has awarded grants under this authority in seventeen fiscal years beginning with Fiscal Year 2001. The Telemedicine Grant Program has been funded at $500,000 per year for each of the 17 grant cycles. The stated purpose of the program is:

- to promote technologically advanced medical services;
- to directly or indirectly enhance access to medical care in rural or underserved areas of the state; and
- to directly or indirectly enhance access to medical care by underserved populations or persons with disabilities.

The telemedicine grants are available to qualified non-profit medical clinics and public health agencies (including tribal health care programs). Generally, these grants are limited to the purchase of equipment that is located on a customer's property. A separate grant program (Wisconsin Broadband Expansion Grant Program) provides funds for broadband infrastructure to increase broadband deployment in rural and underserved portions of the state.

The PSCW last awarded telemedicine grants in May 2016 in dockets 5-TF-2016 and 5-GF-108. A briefing memorandum discussing the relative merits of the proposals submitted in those docket is available on the PSCW's website. (PSC REF#: 285742.) During this round of telemedicine grants, the PSCW awarded grants to 21 applicants. (PSC REF#: 286277.) In Appendix A to these comments, the PSCW included a few excerpts from post-project reports from previous grant cycles that illustrate the range of different types of telemedicine equipment

that have been purchased with Telemedicine Grant Program funds. Below, the PSCW highlights a few points drawn from its experience with the Telemedicine Grant Program that the Commission may find useful.

1. Target Areas and Populations

The PSCW does not conduct its own inquiry to determine the areas of greatest health care need in the state. Instead, the PSCW takes notice of reports from two federal programs to identify underserved areas. Those reports are the Health Professional Shortage Areas Report and the Federally Qualified Health Centers Report.

42 U.S.C. § 254e(a)(1) creates a national standard for a sufficient number of health care professionals as a ratio to population served for primary medical care, mental health care, and dental care. Two summary maps of the shortage areas for primary care and mental health care for Wisconsin are attached to these comments.

Section 330 of the Public Health Services Act (42 U.S.C. § 254b) authorizes federal funding for health centers that provide primary health care services to medically underserved populations. Entities that satisfy the requirements of that section and receive federal funds are designated as Federally Qualified Health Centers.

Wisconsin's Telemedicine Grant Program does not implement these federal programs. The federal programs merely provide useful information to identify areas of need. In addition, some residents of Wisconsin are medically underserved because of particular personal circumstances that limit access to standard health care services. This would include individuals that are low income, homeless, migrant workers, individuals with a disability, and individuals that are members of a culturally distinct group, including those whose preferred language is a language other than English.

2. Video Conference Equipment and Telemedicine Carts

The Telemedicine Grant Program began years before broadband communications service became available. The initial purpose of the program was to use a portion of the state Universal Service Fund to build interest in the use of telecommunications service to augment specific medical practices. In the early years of the program, the grant funds were used most often to purchase video conference equipment. A typical use of this equipment included follow-up psychiatry appointments–a psychiatrist could meet with a patient by teleconference to renew medications or conduct other follow-up consultations without either party having to travel significant distances to meet in person.

More recently, clinics have requested grant funds to purchase telemedicine carts. The carts are mobile and can be moved to the patient bedside to provide a video conference with physicians and other consultants at distant locations. Recent models include a high definition camera that can be used by the specialist to remotely examine a wound or other area of interest. Other attachments can record the patient's health status, and transmit the data and images to the specialist while the video conference is underway. To take advantage of the full range of features available with these telemedicine carts, the clinic must have a broadband communications service to connect the cart to the communications network.

One trend in Wisconsin, that is likely true throughout the country, is that health care is increasingly dominated by large regional hospital systems. In Wisconsin, these regional hospitals are located in Milwaukee, Madison and La Crosse in the southern part of the state; and in Green Bay/Appleton, Wausau/Marshfield and Eau Claire/Chippewa Falls in the northern part of the state. The Mayo Clinic of Rochester, Minnesota, also has satellite clinics in several western counties of Wisconsin.

In response to this trend, the PSCW has used a portion of its telemedicine grant funds to enhance critical care support in specific areas where a telemedicine application made sense. For example, Door County, Wisconsin, is a peninsula and county residents experiencing stroke symptoms must travel past the local hospital, Ministry Door County Medical Center (MDCMC) in Sturgeon Bay, in order to reach the regional care facilities in Green Bay and Appleton. The PSCW approved a grant to purchase a telemedicine cart for the trauma unit of MDCHC to permit consultation with a neurologist by teleconference. The hope of this grant is that travel time to reach a health care facility will be reduced and corrective medicines and other therapy can be administered more quickly.

3. Home Health Monitoring Units

A category of telemedicine equipment that the PSCW has recently begun to fund is home health monitoring units. These units are typically used in conjunction with a visiting nurse service or other home health care arrangement. The units connect via a broadband connection to a supervising nurse. Attachments allow the home monitoring units to measure a variety of patient data, including pulse, blood pressure, blood oxygenation, temperature, blood sugar level, and body weight. This device would be of use for a patient with a chronic condition that requires regular check-ins with a medical clinic. The monitoring units can reduce the amount of travel required for patients that have limited mobility or other conditions that make travel difficult.

These home health monitoring units are the emerging telemedicine application that places the greatest demand upon the broadband network. The existing data requirements of the current generation of monitoring units require a wireless or hard wire (with a Wi-Fi router) broadband connection to work effectively. There are areas in Wisconsin where the broadband service required by these devices is still not available.

It is also true that this home health monitoring technology is in the early years of its product development cycle. The latest proposals submitted for monitoring units included requests for equipment that could connect the patient and the supervising nurse by a video connection, such as Skype, in addition to transmitting the health status information. As transmission capacity of broadband service improves, it seems likely that the care options available with this type of equipment will improve as well.

Finally, the cost of both the home health monitoring units and broadband service can limit access to this type of health care. The PSCW has not investigated the degree to which the cost of providing this level of care limits access. However, based upon the discussion in the grant applications, it is likely that a significant number of people that could benefit from this type of care already have access to an adequate broadband service and already have access to a visiting nurse service with this type of telemedicine equipment, but are unable to pay for the services.

The PSCW provides grants to reduce the cost of the telemedicine equipment and service offered to patients. The PSCW also offers information on its web site to help locate discount broadband programs. The Commission's recent changes extending the benefits of the Lifeline program to broadband services may offer an important step toward mitigating the impact of these costs on low-income individuals as well. Nevertheless, the continuing interest in Wisconsin's Telemedicine Grant Program shows that additional assistance may be required to make this monitoring equipment available to all the individuals that could use it.

Conclusion

In conclusion, the PSCW congratulates the Commission for its interest in this topic. There is an opportunity to improve the quality of health care by upgrading the broadband support

for the various telemedicine devices. The PSCW submits these comments with the hope that the experience with the Wisconsin Telemedicine Grant Program may serve as one example of a program that can encourage the interest and use of broadband-enabled medical equipment and services.

Dated at Madison, Wisconsin, this 25th day of May, 2017.

By the Commission:

Sandra J. Paske
Secretary to the Commission

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Attachments
Appendix A
DL: 1537805 - Health Professional Shortage Area – Primary Medical Care
DL: 1537809 – Health Professional Shortage Area – Mental Health Care

Appendix A

Below are a sample of excerpts from post-project reports that illustrate the different types of equipment that have been purchased with telemedicine grant program funds:

Access Community Health Centers, Madison, Wisconsin

Access CHC received a grant of $8,204.00 to purchase iPad tablet computers with a specific application installed, "LanguageU On-Demand Video Interpreting." Access placed the iPads in clinics located in Dane and Iowa Counties in Wisconsin. If a patient came to an Access clinic unable to communicate in English (or Spanish and Hmong in some clinics), the clinic could use the iPad to connect to an interpreter by Skype. Eleven languages as well as American Sign Language are available.

> At our Dodgeville Dental Clinic, there was a mother and child who came in for an appointment to address a pain issue. Staff was able to set up the iPad and communicated effectively with both the mother and child in their native language. The child was fascinated with the fact that they could press a button and a person popped up on the screen speaking their language. The mother appreciated that she was able to have a thorough understanding of the proposed treatment for her child and be able to ask questions. Staff were able to walk with the iPad to the registration area with the mother to assist in making follow-up appointments for her child. While they were checking out, the mother set up appointments for the other three children in the family. Because of the positive experience the mother had with the first child, she was willing to bring her other children in for check-ups and preventive care. (PSC REF#: 303130.)

Aspirus, Inc., Wausau, Wisconsin

Aspirus received a grant of $28,339.26 to purchase video teleconference equipment for its clinics in Antigo and Elcho, Wisconsin. The equipment consists of a 42-in video monitor and a camera. The monitor and camera are mounted on a cart to permit it to be moved between rooms. Over time, this type of equipment has improved steadily with the advances in video and computer technologies. The equipment purchased by Aspirus includes a high definition television monitor and a high definition camera that can be controlled remotely by the physician

conducting the examination. The clinic can add attachments to permit the clinic to measure and transmit patient medical data as part of the examination.

> Studies have shown that visits provided via telemedicine are equivalent in quality to face-to-face psychiatric treatment. Also, according to a recent study, telepsych services have the potential to decrease hospital admissions as well as total days of hospitalization for patients. In this study, admissions were reduced by 24% and total hospitalized days were reduced by 27%. (PSC REF#: 204070, Grant Application at p. 21.)
>
> This equipment has allowed us to improve our overall telehealth strategy and enhance access to medical care in a rural area, particularly the telepsychiatry program located in the Eastern corridor of the Aspirus service area [Langlade County]. (PSC REF#: 303131.)

Community Memorial Hospital, Suring, Wisconsin

Community Memorial Hospital received a grant of $30,000.00 to purchase a digital x-ray device. This system replaced older equipment that used film to capture an image. The equipment permits the hospital to more easily share the digital x-ray images within the hospital and also transmit the images to physicians in other cities.

> Exam turn-around-times have gone down. Signed reports from the Radiologist are available much sooner due to the electronic availability of images minutes after they are acquired. Image quality has also improved with the new technology. (PSC REF#: 303132.)

Indianhead Community Action Agency, Ladysmith, Wisconsin

Indianhead CAA received a grant of $25,000 to purchase four home health monitoring units for use in its clinic in Barron, Wisconsin. This equipment is used to monitor a client's pulse, blood pressure, weight gain/loss and oxygen saturation levels for any abnormalities that would alert a nurse to a possibility of an exacerbation of congestive heart failure or chronic obstructive pulmonary disease (COPD). Additional attachments can be added to measure patient weight, temperature and blood sugar levels.

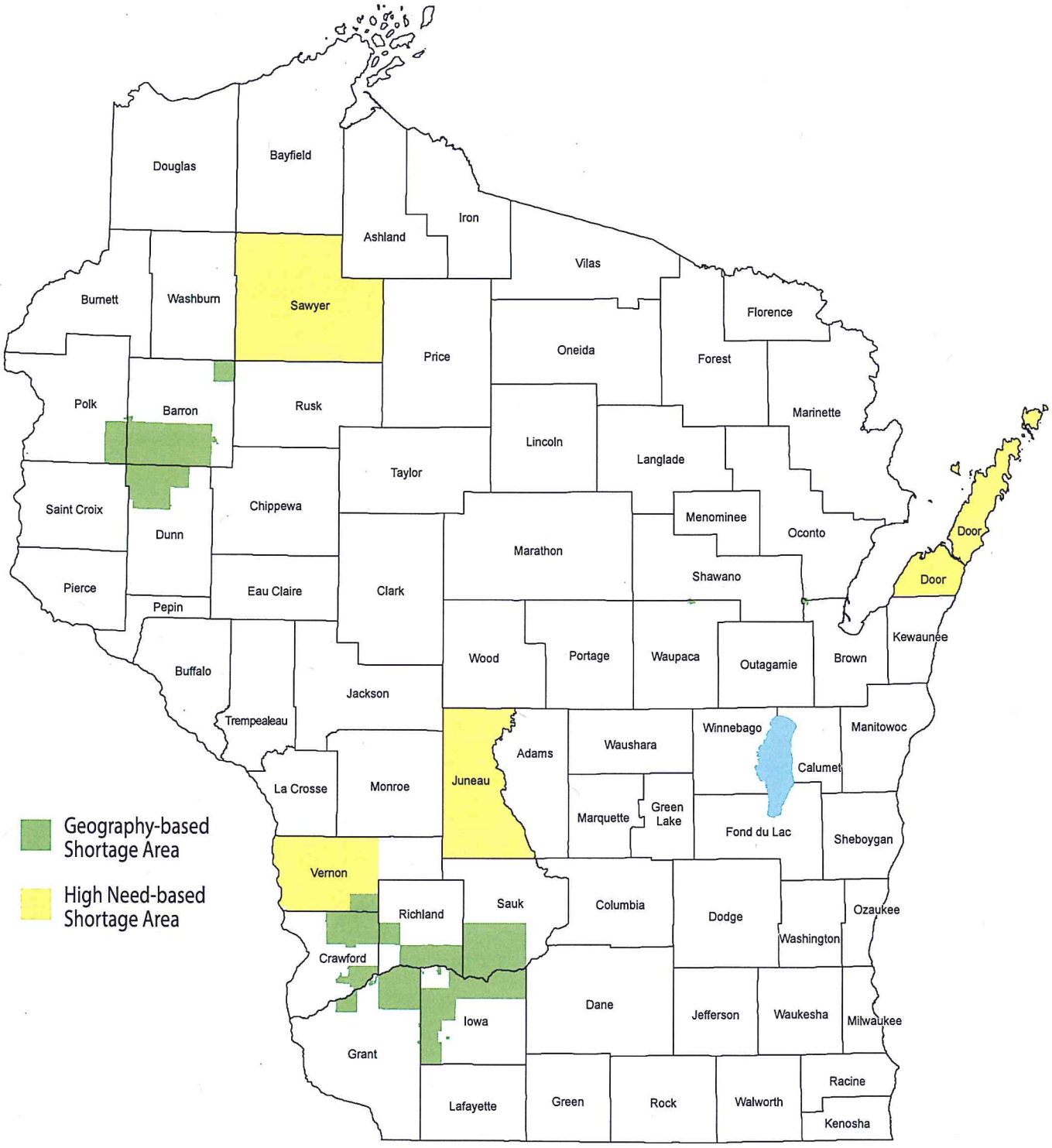
> One client who has benefited from this technology is a younger [military] Veteran who is a double amputee . . . [it is] difficult for him to get out of his apartment for things other than an emergency. . . . [the nurses] have been able to provide this Veteran with [a home health monitoring device] to accurately and efficiently monitor his condition remotely versus his family attempting to get him to the clinic . . . If his condition changes, [the nurses] are able to contact the client's physician and obtain a medication adjustment to prevent an emergency hospitalization. (PSC REF#: 303133.)

St. Clare Hospital, Baraboo, Wisconsin

St. Clare Hospital received a grant of $60,335 to purchase a digital pathology system. The equipment suite includes two cameras, an automated microscope with three objectives, and a computer with monitor. The equipment permits a hospital technician in Baraboo to capture images of tissue samples and transmit those images to pathology specialists in Madison and other cities by broadband internet connection.

> [A] pathologist utilizing the VisionTek M6 system has indicated that the digital microscope has outperformed optical microscopy with ease of software and ability to view multiple slides at the same time. (PSC REF#: 303134.)

Governor-Designated Shortage Areas for Rural Health Clinics



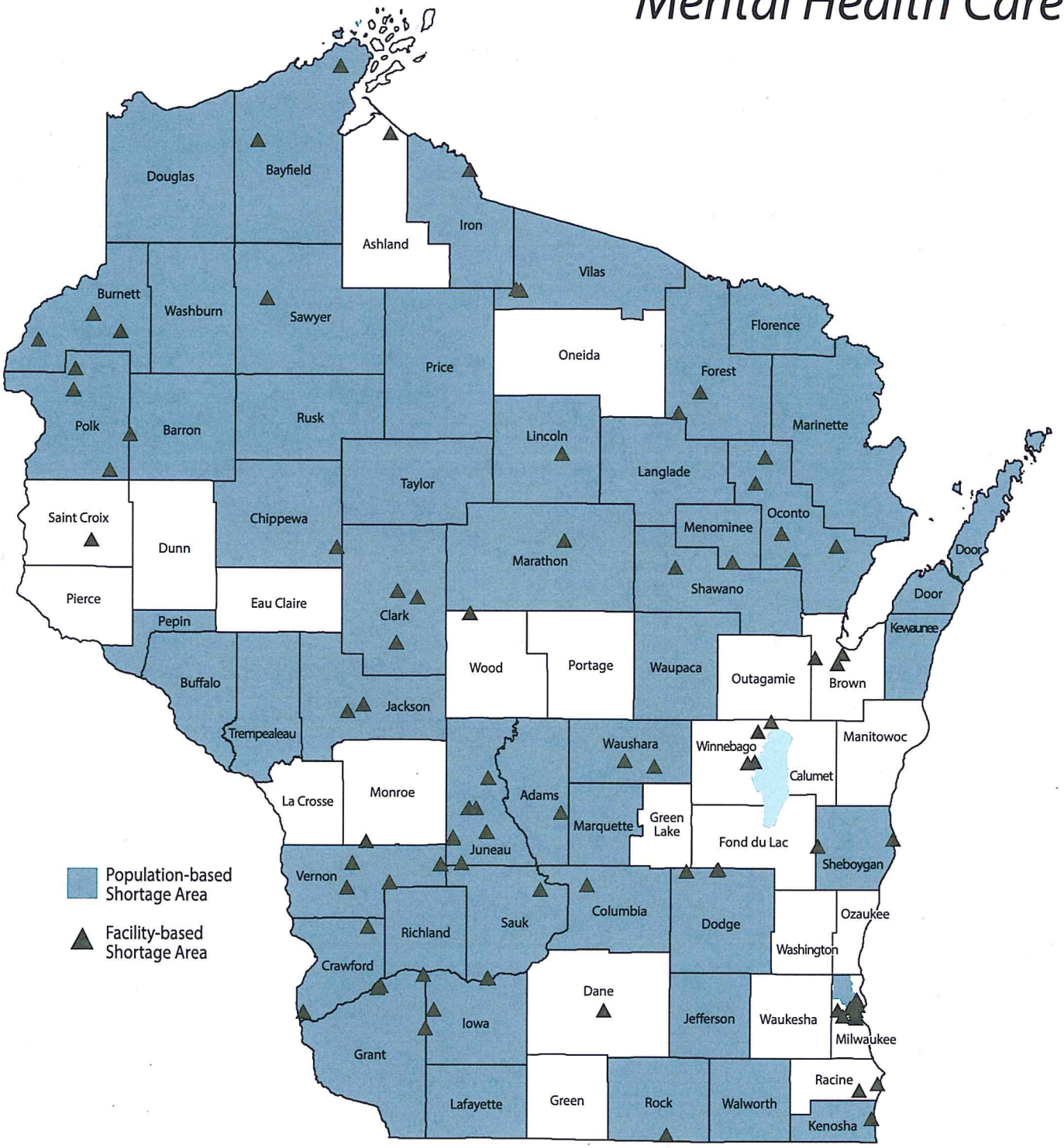
To learn more about governor-designated shortages areas for rural health clinics, visit the Wisconsin Primary Care Program website.

Source: Wisconsin Department of Health Services, Primary Care Program. Data last updated May 2016. Map produced March 2017.

WORH
Office of Rural Health
www.worh.org

Health Professional Shortage Areas

Mental Health Care



To determine if a specific location has a HPSA designation, visit HPSA Find.

Source: Health Resources and Services Administration, Geospatial Data Warehouse, March 2017.

WORH
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